DFCM DESIGN AND CODE CRITERIA

APF	PLICABL	E CODES	
	Year		Year
International Building Code	2006	National Electrical Code	2005
International Mechanical Code	2006	Uniform Code for	
International Plumbing Code	2006	Building Conservation _	N/A
International Fire Code	2006	ADA Accessibility	
International Energy		Guildelines	2006
Conservation Code	N/A	_	

A.	Occupancy and Group:B		
	Change in Use: Yes NoX Mixed Occupancy: Yes	No _	X
	Special Use and Occupancy (e.g. High Rise, Covered Mall): NO		

- - Type of Construction (circle one):

• •		•	•					
<u>I</u>	I	Π	I	\prod	\coprod	$\mathbb{I}\!$	$\overline{\Delta}$	∇
A	В	A	B	A	B	HT	A	В

Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):

North: N/A South: N/A East: N/A West: N/A

- Mixed Occupancies: NO Nonseparated Uses: NO

Required: NO Provided: YES Type of Sprinkler System: WET PIPE

- Number of Stories: ___1 Building Height: N/A
- Actual Area per Floor (square feet): ____ 14,368 actual bldg sq ft
- Tabular Area: __as per table 503 (23,000 sq ft allowed.)
- Area Modifications:

a)
$$A_a = A_t + \left[\frac{A_t I_f}{100} \right] + \left[\frac{A_t I_s}{100} \right]$$

$$I_f = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{20}$$

b) Sum of the Ratio Calculations for Mixed Occupancies:

- 1) One Story: ___-
- 2) Two Story: A_a(2)___-

3) Three Story: A₂(3) -

- d) Unlimited Area Building: Yes _____ No __X_ Code Section: __N/A
- K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0	-	Floors - Ceiling Floors	0	-
Interior Bearing Walls	0	-	0	-	
Exterior Non-Bearing Walls	0	-	Exterior Doors and Windows Shaft Enclosures	0	-
Structural Frame	0	-		N/A	-
Partitions - Permanent	0	0 - Fire Walls	0	-	
Fire Barriers	0	-	Fire Partitions	0	-
			Smoke Partitions	0	-

Design Occupant Load: XX

Exit Width Provided: XX Exit Width Required: XX

- M. Minimum Number of Required Plumbing Facilities:
- a) Water Closets Required (m) XX (f) XX Provided (m) X (f) X b) Lavatories - Required (m) XX (f) XX Provided (m) X (f) X
- c) Bath Tubs or Showers: XX
- d) Drinking Fountains: XX Service Sinks: XX

FOOTNOTES:

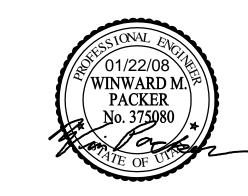
- 1) In case of conflict with the U.S. Department of Justice Federal Registers Parts through $\, \mathbb{Z} \,$ - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.
- 2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
 - a) High Rise Requirements.
 - b) Atriums.
 - c) Performance Based Criteria.
 - d) Means or Egress Analysis.
 - e) Fire Assembly Locator Sheet. f) Exterior and Interior Accessibility Route.

 - g) Fire Stopping, Including Tested Design Number.

DEPARTMENT OF SAFETY RICHFIELD ITS UHP DISPATCH MODIFICATIONS

DFCM PROJECT NO. 06298550 RICHFIELD, UTAH 84701







MECHANICAL ENGINEER

WHW ENGINEERING, INC. 1354 EAST 3300 SOUTH SUITE 200 SALT LAKE CITY, UTAH 84106 PHONE: (801) 466-4021 FAX: (801) 466-8536

ARCHITECT

P + A ARCHITECTS 821 EAST KENSINGTON AVENUE. SALT LAKE CITY, UTAH 84105 PHONE: (801) 484-1161 FAX: (801) 485-4640

ELECTRICAL ENGINEER

THOMAS & KOLKMAN ENGINEERING CO. INC. 64 WEST 1700 SOUTH SALT LAKE CITY, UTAH 84115 PHONE: (801) 484-8161 FAX: (801) 484-3538



G000 ----- TITLE SHEET

A-G001---- ARCHITECTURAL GENERAL INFORMATION

A-SP101-- SITE PLAN

A-DP101-- DEMOLITION FLOOR AND CEILING PLAN

A-FP101-- NEW FLOOR AND CEILING PLAN

A-DT500-- ARCHITECTURAL DETAIL

MG001---- MECHANICAL GENERAL NOTES AND LEGEND

MD101---- MECHANICAL DEMOLITION FLOOR PLAN MD102---- MECHANICAL DEMOLITION ROOF PLAN

ME101---- MECHANICAL FLOOR PLAN ME102---- MECHANICAL ROOF PLAN

ME501---- MECHANICAL DETAILS

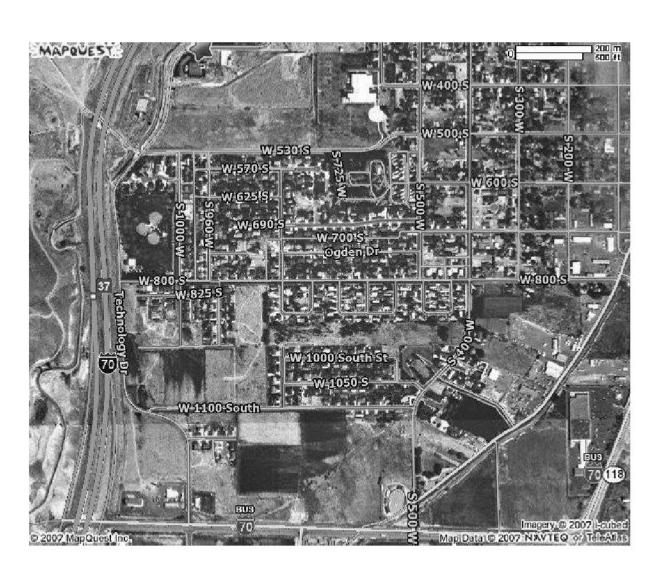
ME601---- MECHANICAL SCHEDULES E-101 ---- ELECTRICAL PLANS AND SCHEDULES

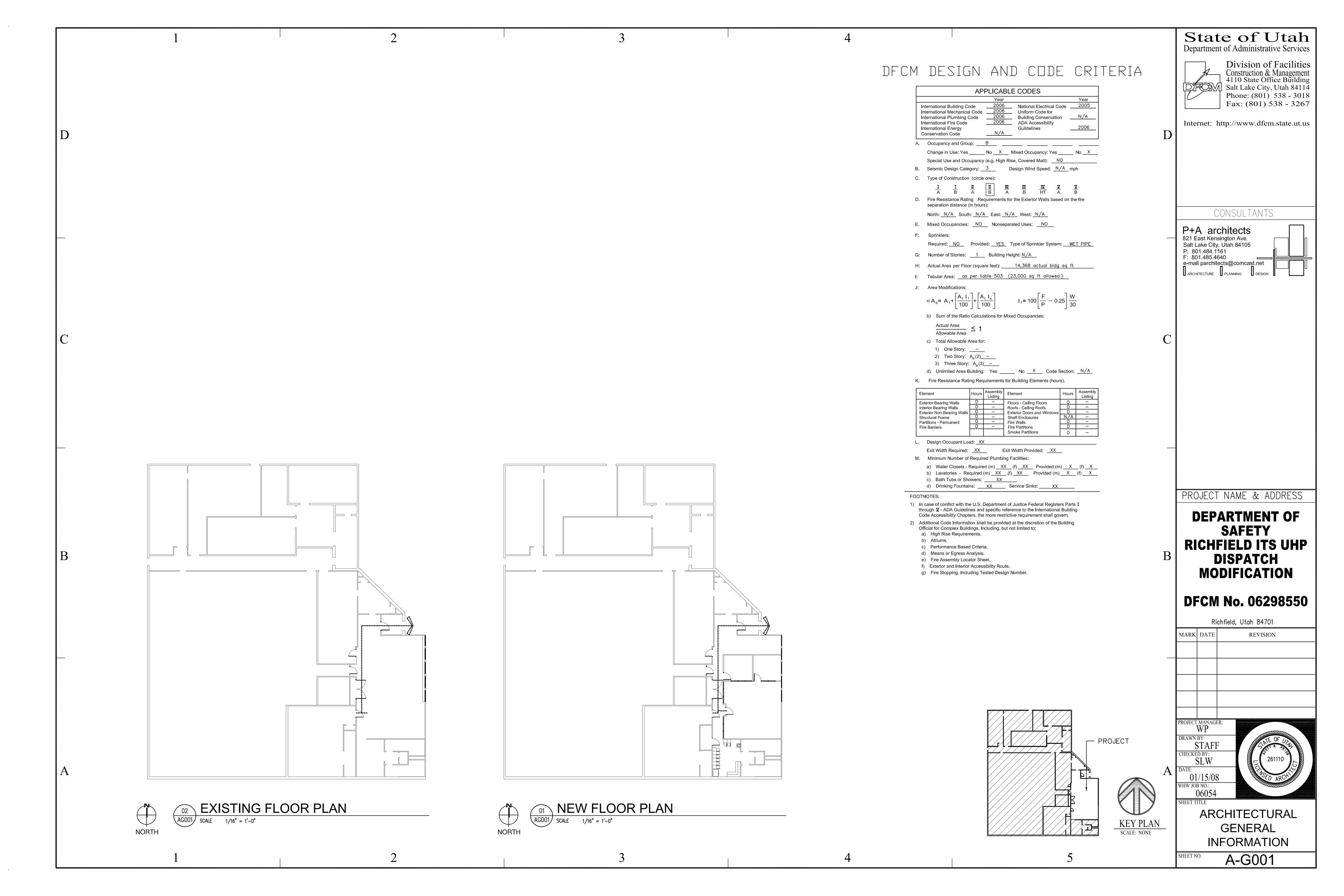
E-102 ---- ROOF ELECTRICAL PLAN

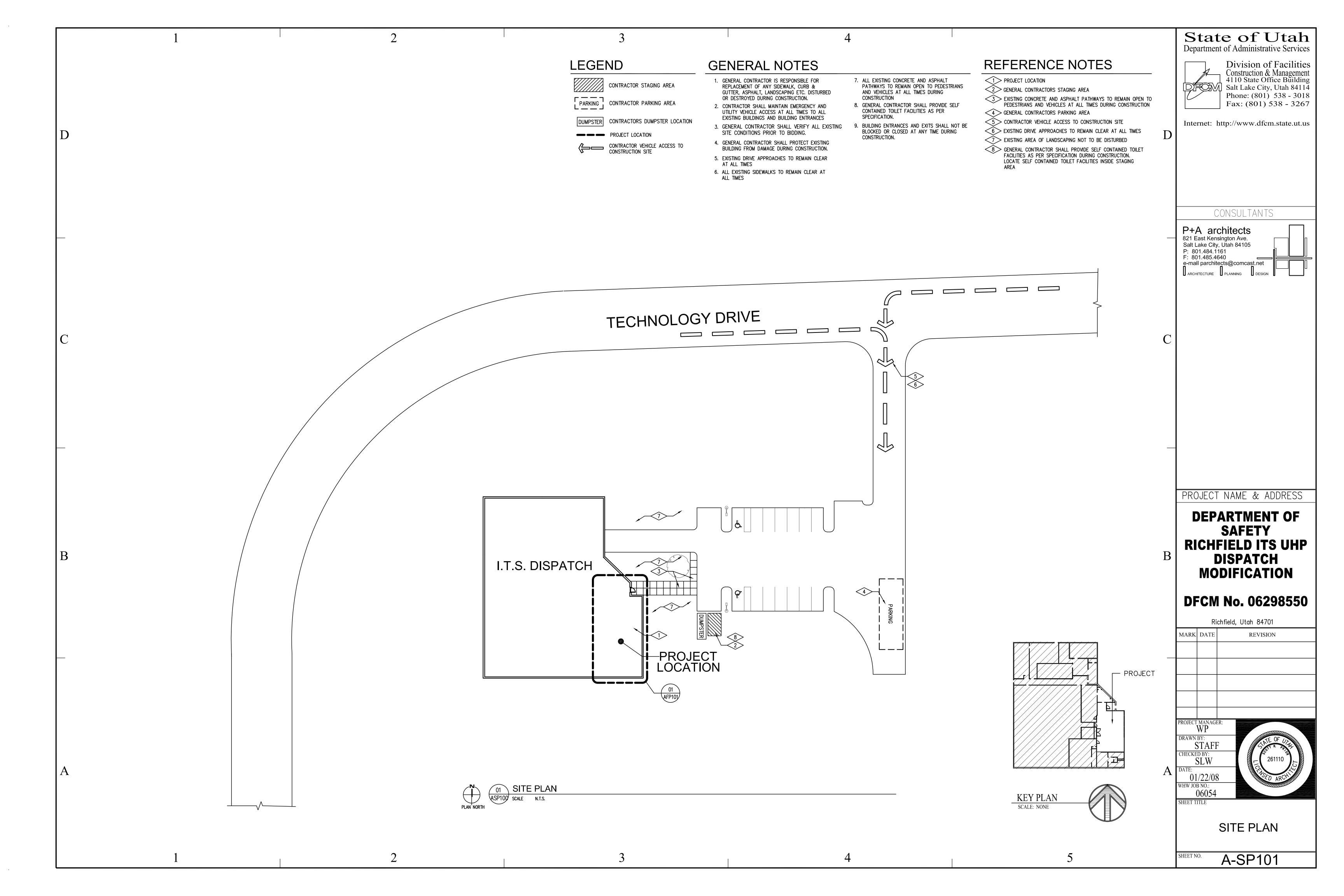
EL101----- LIGHTING PLANS EP101---- POWER PLANS

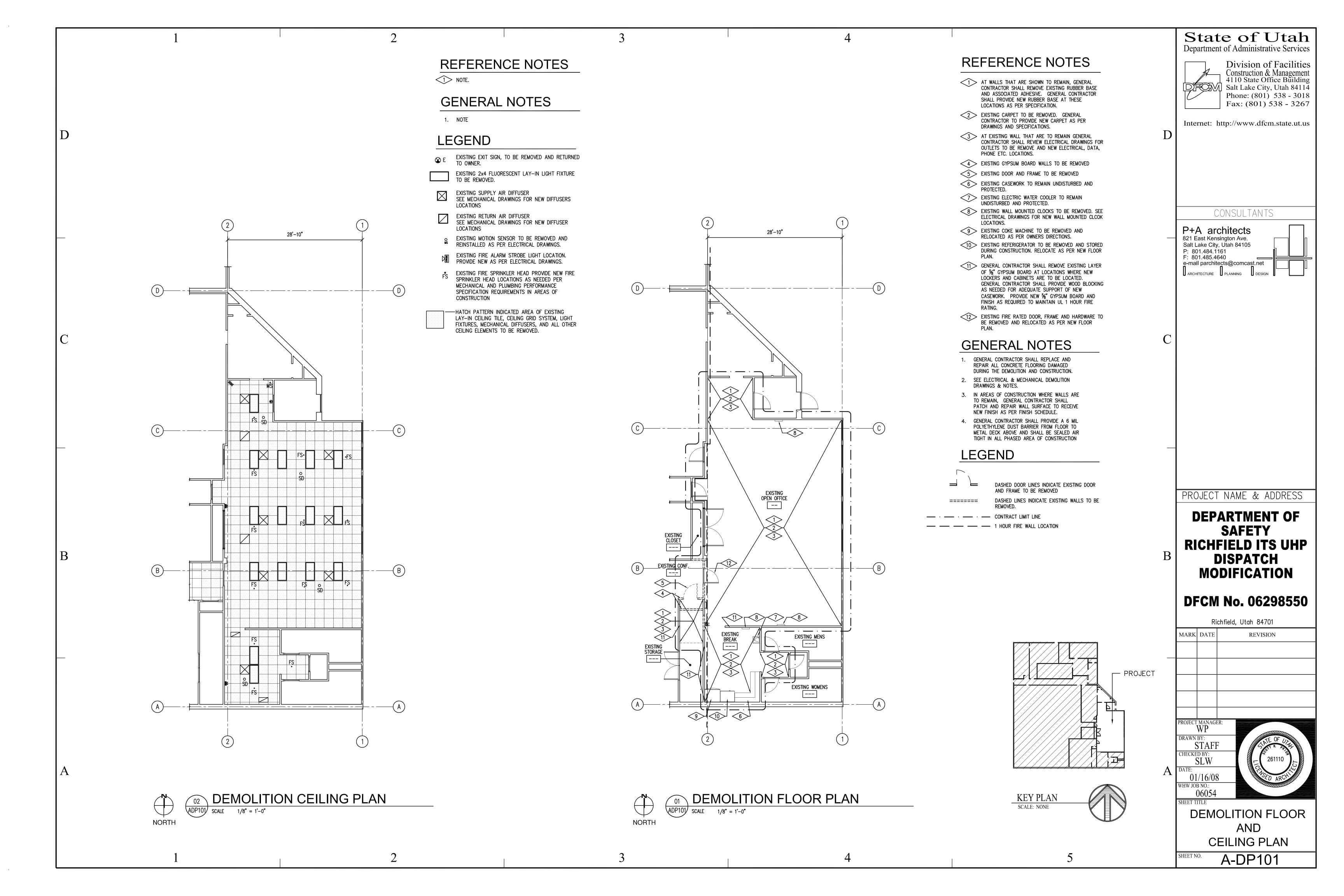
FA101----- FIRE ALARM PLANS

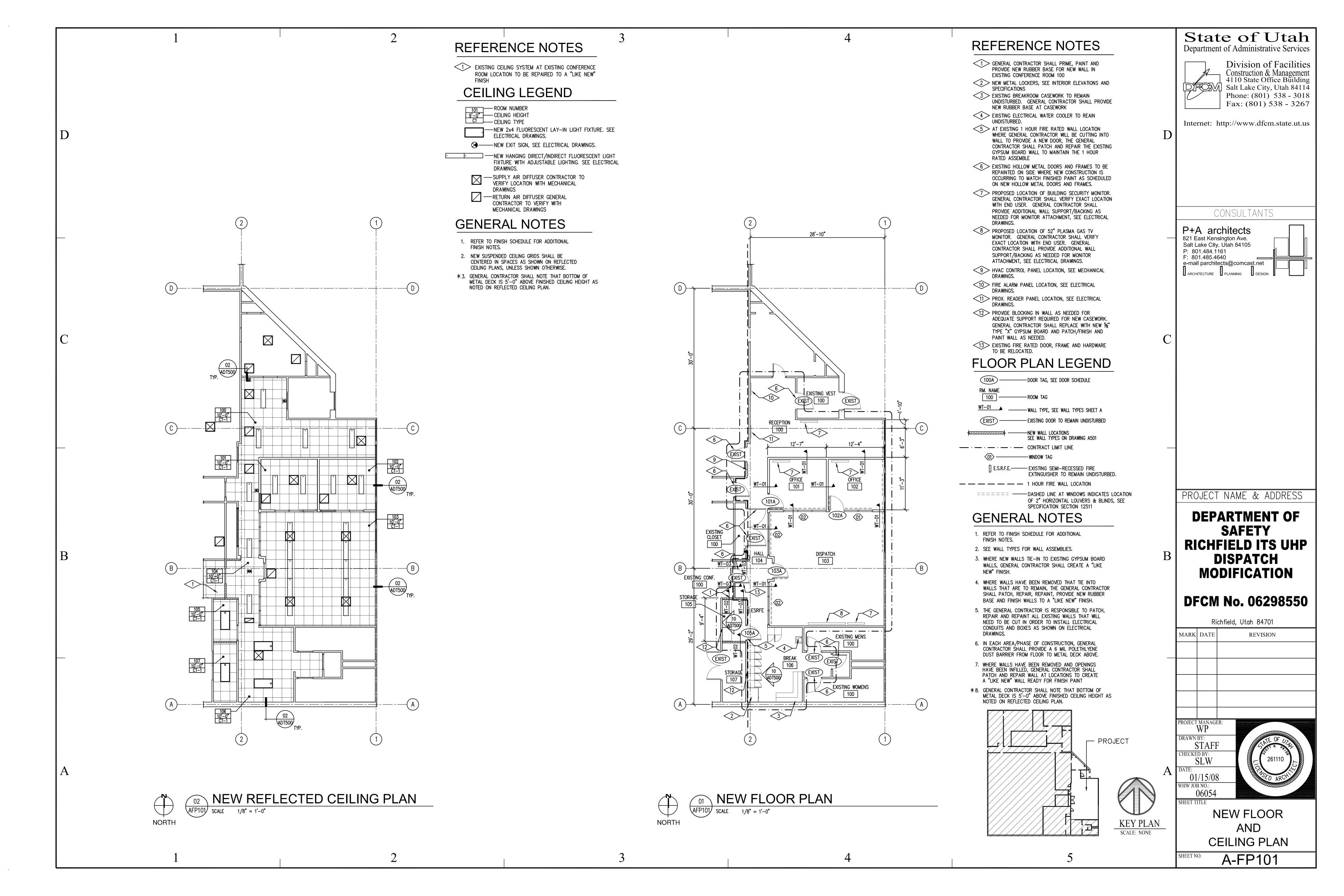
E-601 ---- SYMBOLS LIST, SCHEDULES AND DIAGRAMS

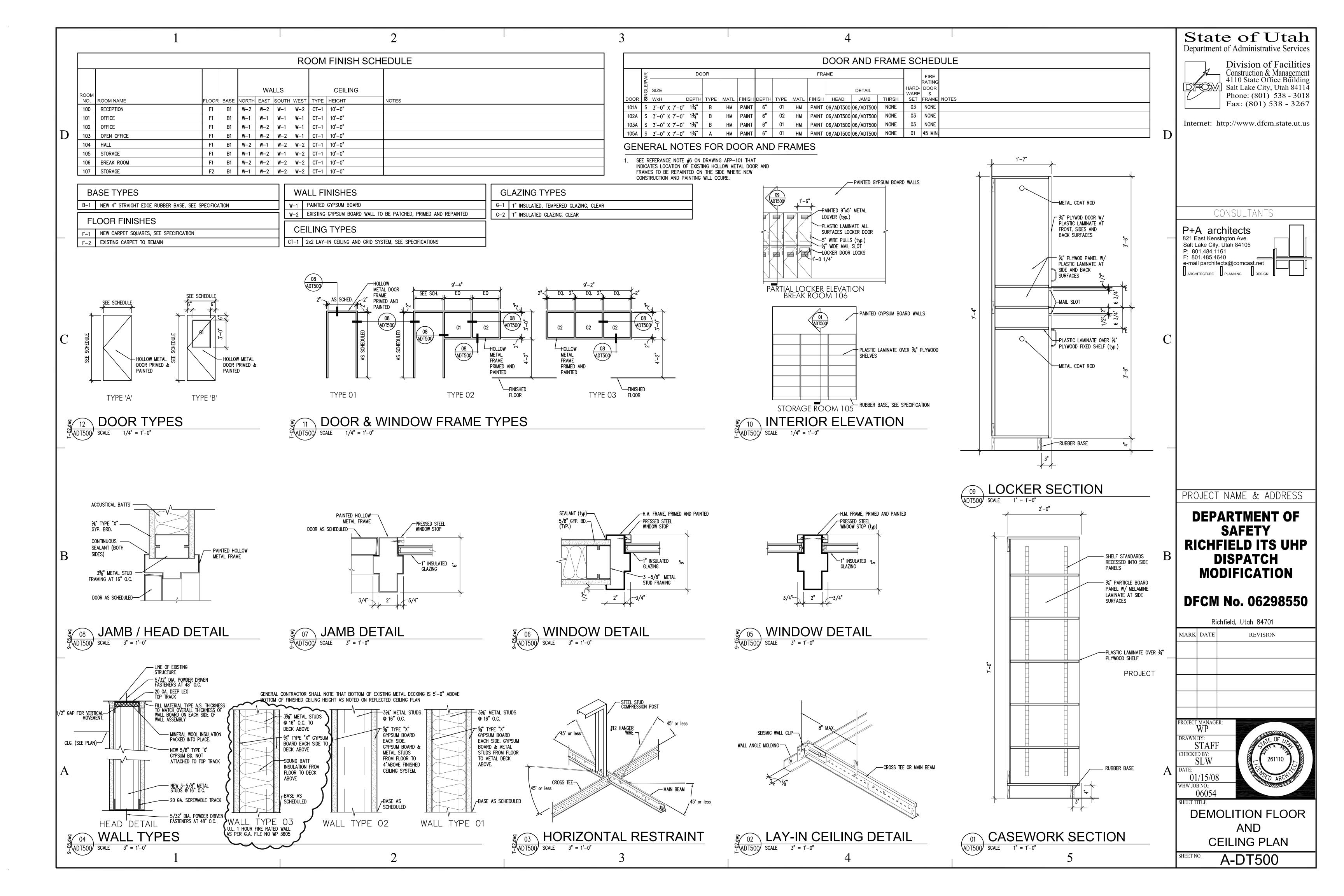












							_	_
SYMBOL	ABR.	DESCRIPTION	SYMBOL	ABR.	DESCRIPTION	SYMBOL	ABR.	L
		GENERAL TERMINOLOGY			AIR SIDE		_	_
A		SECTION LETTER DESIGNATION	누러 돈킄		EXISTING AIR DUCT TO BE REMOVED	(RELOC)		L
ME-101		SECTION DRAWN ON THIS SHEET	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		EXISTING AIR DUCT TO REMAIN	O		L
(A2)		DETAIL NUMBER DESIGNATION	₩ 🖽		NEW AIR DUCT	C		L
		CORRESPONDING WITH GRID LOCATION	江草		RECT. TO RECT. AIR DUCT TAKE-OFF			L
AH		MECHANICAL EQUIPMENT DESIGNATION	江草		RECT. TO RND. AIR DUCT TAKE-OFF			L
1		EQUIPMENT ITEM DESIGNATION	江草		RND. TO RND. AIR DUCT TAKE-OFF			L
D-1		REGISTER, GRILL OR DIFFUSER DESIGNATION WITH BALANCING CFM LISTED	\ _ \ \ _ \ \ _ \ \ _ \ \ - \ \ _ \ \ _ \ \ - \ \ _ \ \ - \ \ \ \ - \ \ \ \ - \ \ \ \ \ - \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		RECT. TAKE-OFF AT END OF MAIN			<u> </u>
CFM		BELOW	Similar		FLEXIBLE AIR DUCT			L
R-1		GRILLE, OR LOUVER DESIGNATION WHERE			LINED DUCT			<u> </u>
		BALANCING NOT REQUIRE			VANED ELBOW			<u> </u>
<u>^</u>		REVISION DESIGNATOR AND NUMBER			RADIUS ELBOW			<u> </u>
1		KEY NOTE DESIGNATOR AND NUMBER			CONCENTRIC DUCT TRANSITION	—CD—		<u> </u>
•	POC	POINT OF CONNECTION	<u> </u>		ECCENTRIC DUCT TRANSITION	—-G—		<u> </u>
Θ	POR	POINT OF REMOVAL	1 5		FLEXIBLE AIR DUCT	-		L
AFF		ABOVE FINISHED FLOOR	₩ VD		VOLUME DAMPER	 		L
AP		ACCESS PANEL			SUPPLY AIR DIFFUSER	<u>—</u> Ф—	BV	L
C EL.		CENTER LINE ELEVATION	Q		RETURN AIR, FRESH AIR, AND TRANSFER AIR			
GC		GENERAL CONTRACTOR			RETURN OR OUTSIDE AIR DUCT UP			
МС		MECHANICAL CONTRACTOR			SUPPLY DUCT UP			
CC		CONTROL CONTRACTOR			RETURN AIR DUCT DOWN			
EC		ELECTRICAL CONTRACTOR			SUPPLY DUCT DOWN			
NIC		NOT IN CONTRACT			ROUND DUCT UP			
NTS		NOT TO SCALE	H 10		LOWER DUCT DOWN			
			<u>R</u>		FLEXIBLE DUCT CONNECTION			
					ROUND DUCT DOWN			
					FLEXIBLE DUCT CONNECTION			
			├		PARALLEL BLADE DAMPER			
			├		OPPOSED BLADE DAMPER			
				AP	ACCESS PANEL			
					EXISTING EQUIPMENT TO BE REMOVED			
					EXISTING EQUIPMENT TO REMAIN			
					NEW EQUIPMENT			
			F	FD	FIRE DAMPER			
			R	RD	RADIATION TYPE FIRE DAMPER			
			s	SD	SMOKE DAMPER			
			FS	FS	FIRE & SMOKE DAMPER			
			T	T-STAT	WALL MOUNTED THERMOSTAT			
			SA		SUPPLY AIR			
			RA		RETURN AIR			
			OA		OUTSIDE AIR			
			FA		FRESH AIR			
						_		

GENERAL NOTES:

DESCRIPTION

EXISTING PIPING TO BE REMOVED

EXISTING PIPING TO REMAIN

WET SIDE

RELOCATED

ELBOW UP

TEE UP

TEE DOWN

NEW PIPING

PIPE CAP OR PLUG

CONCENTRIC REDUCER

ECCENTRIC REDUCER

CONDENSATE DRAIN

NATURAL GAS PIPING

DIRECTION OF FLOW

UNION

BV BALL VALVE

ELBOW DOWN

MECHANICAL INFORMATION IS NOT LIMITED TO THE MECHANICAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING DRAWINGS BY OTHER DISCIPLINES AND SPECIFICATIONS.

A - EACH DRAWING SHEET AND THE SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH ITEMS SHOWN AND NOTED ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN ALL PLACES. ITEMS IN SPECIFICATIONS OR DRAWINGS LISTED WHICH ARE DIFFERING IN EFFICIENCY OR QUALITY SHALL BE HELD TO THE GREATEST OF: EFFICIENCY, QUALITY OR GOVERNING CODE.

B - THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE INSTALLATION OF THE SYSTEMS ACCORDING TO THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS.

C - THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT WITH PROPER SERVICE ACCESS AND CLEARANCES ACCORDING TO MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL REVIEW SUPPLIERS BID PACKAGES FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS, SCHEDULES, AND DESIGN INTENT (ALL EQUIPMENT AND METHODS). THE CONTRACTOR SHALL REMOVE AND REINSTALL CORRECTLY AT HIS OWN EXPENSE ANY EQUIPMENT NOT IN COMPLIANCE.

D - THE CONTRACTOR SHALL CONSULT MANUFACTURERS INSTALLATION INSTRUCTIONS FOR SIZES, METHODS, ACCESSORIES, AND CLEARANCES IN SPACE AVAILABLE PRIOR TO BIDDING PROJECT.

E - ANYTHING NOT CLEAR OR IN CONFLICT WILL BE EXPLAINED BY MAKING APPLICATION TO THE ENGINEER IN WRITING.

ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE PRESENTED TO THE ENGINEER FOR APPROVAL BEFORE MAKING ANY CHANGES.

CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATIONS.

THE WORKING DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR MECHANICAL EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL DRAWINGS. THE CONTRACTOR SHALL PROVIDE OR COORDINATE WITH THE GENERAL CONTRACTOR PROVISIONS FOR BLOCKOUTS OR CORE DRILLS THROUGH STRUCTURE.

THE INSTRUCTION TO "PROVIDE" ALSO INCLUDES INSTALLATION.

MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL SMOKE AND FIRE DAMPERS AS REQUIRED BY LOCAL CODES AND AUTHORITIES.

SHEET METAL DUCT SIZES SHOWN ON DRAWINGS ARE FREE AREA DIMENSIONS.

PROVIDE AND INSTALL BALANCING DAMPERS IN ALL SUPPLY AND EXHAUST AIR BRANCH DUCTS. BALANCE TO CFM SHOWN ON PLAN.

SEE REFLECTED CEILING PLAN FOR EXACT LOCATION OF DIFFUSERS AND GRILLES.

PROVIDE TURNING VANES IN ALL ELBOWS OF RECTANGULAR DUCT.

THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY IN HANDLING AND DISPOSING OF REFRIGERANTS, OILS, ETC. ALL SUCH MATERIALS SHALL BE HANDLED, DISPOSED, AND USED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS.

G-12 THE MECHANICAL CONTRACTOR SHALL VERIFY MOTOR VOLTAGES WITH THE ELECTRICAL DRAWING BEFORE ORDERING MOTORIZED **EQUIPMENT AND CONTROLS.**

C.F.M. LISTED IS ACTUAL AIR.

SUPPLIERS SHALL REVIEW ALL DRAWINGS AND THE SPECIFICATIONS PRIOR TO SUBMITTING PRICES TO THE CONTRACTOR. ALL QUESTIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BIDDING.

CONTRACTOR SHALL THOROUGHLY REVIEW AND SIGN SUBMITTALS FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS PRIOR TO ENGINEERS REVIEW. SUPPLIERS SHALL HIGHLIGHT OR MARK ALL INFORMATION REQUIRED TO SHOW COMPLIANCE TO THE SPECIFICATIONS. ALL REQUESTED EXCEPTIONS TO THE SPECIFICATIONS, OR SCHEDULES SHALL BE CLEARLY NOTED AND EXPLAINED. SUBMITTAL REVIEW AND ACCEPTANCE IS FOR DESIGN CONCEPT ONLY, AND DOES NOT AT ANY TIME RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO MEET SPECIFICATIONS, CAPACITIES, OR DESIGN INTENT.

ALL MECHANICAL SHALL BE INSTALLED AND CONFORM TO THE 2003 EDITION OF THE IMC WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.

State of Utah Department of Administrative Services

Division of Facilities Construction & Management 4110 State Office Building Salt Lake City, Utah 84114 Phone: (801) 538 - 3018 Fax: (801) 538 - 3267

Internet: http://www.dfcm.state.ut.us

CONSULTANTS



WHW ENGINEERING INC. PROFESSIONAL MECHANICAL ENGINEERING 1354 East 3300 South Suite 200 SALT LAKE CITY, UTAH 84106 (801)466-4021, FAX 466-8536 MAIL: excellence@whw-engineering.com

PROJECT NAME & ADDRESS

DEPARTMENT OF SAFETY RICHFIELD ITS UHP **DISPATCH MODIFICATION**

DFCM No. 06298550

Richfield Utah 84701

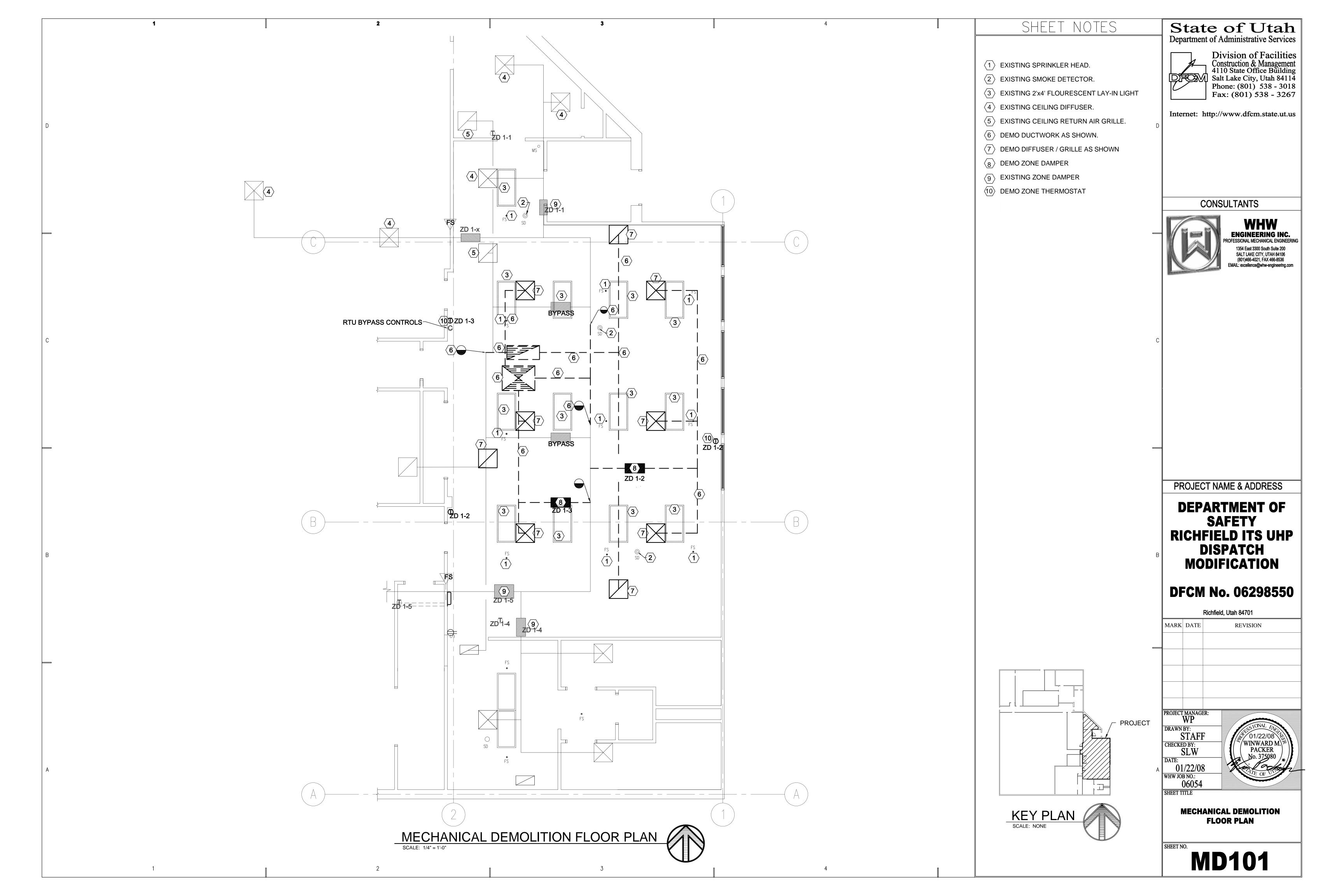
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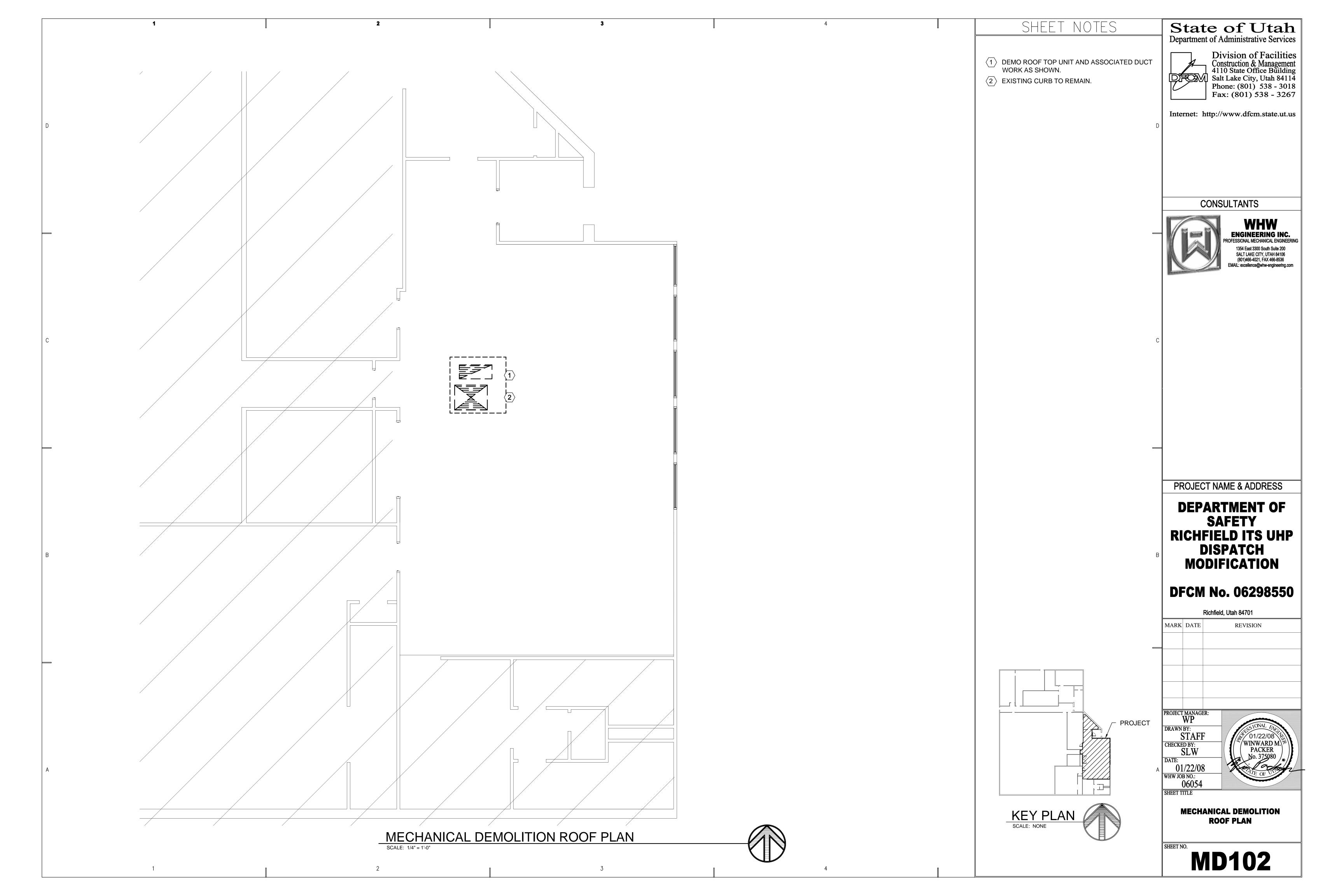
STAFF CHECKED BY: SLW WHW JOB NO.:

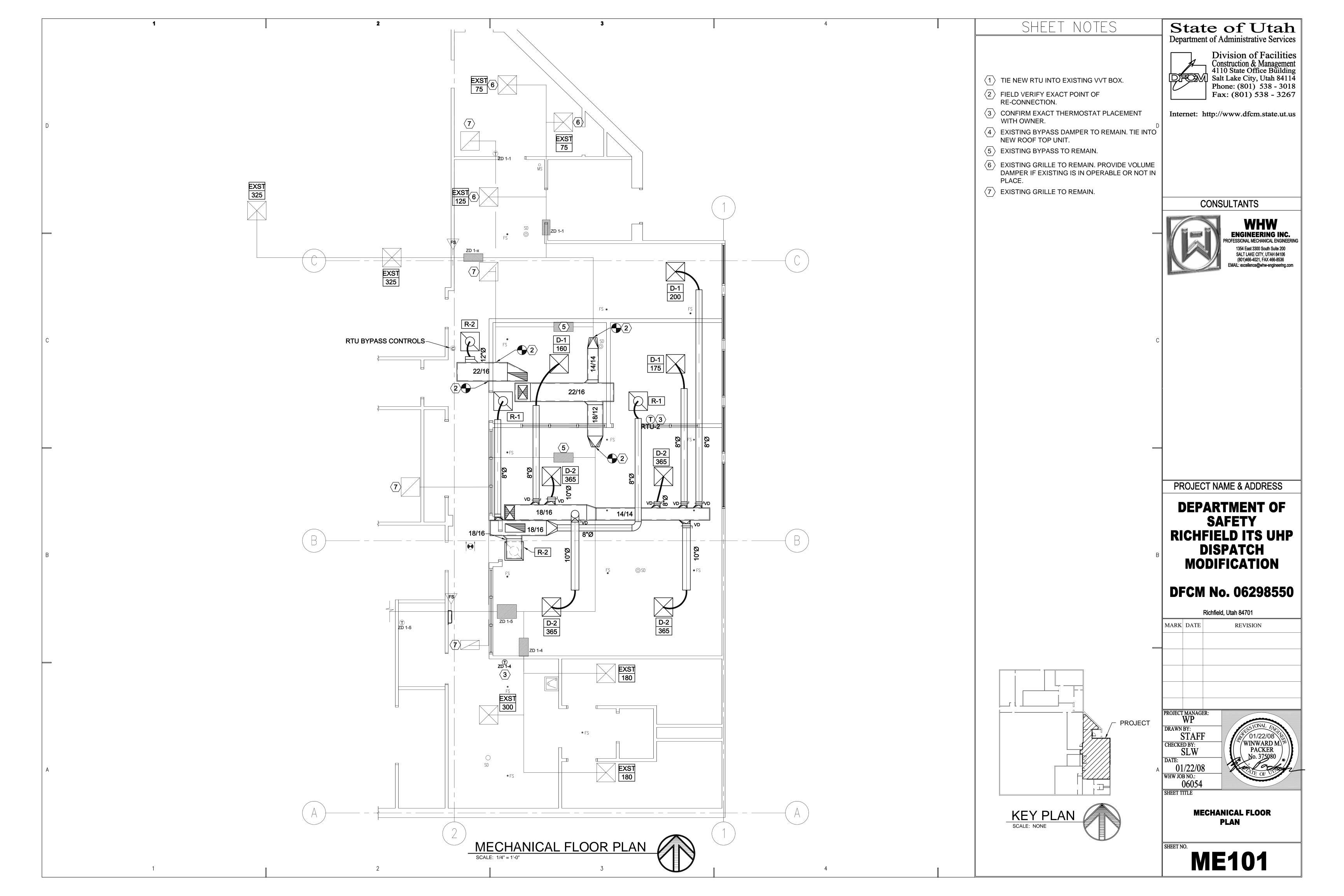
01/22/08 WINWARD M. PACKER 06054

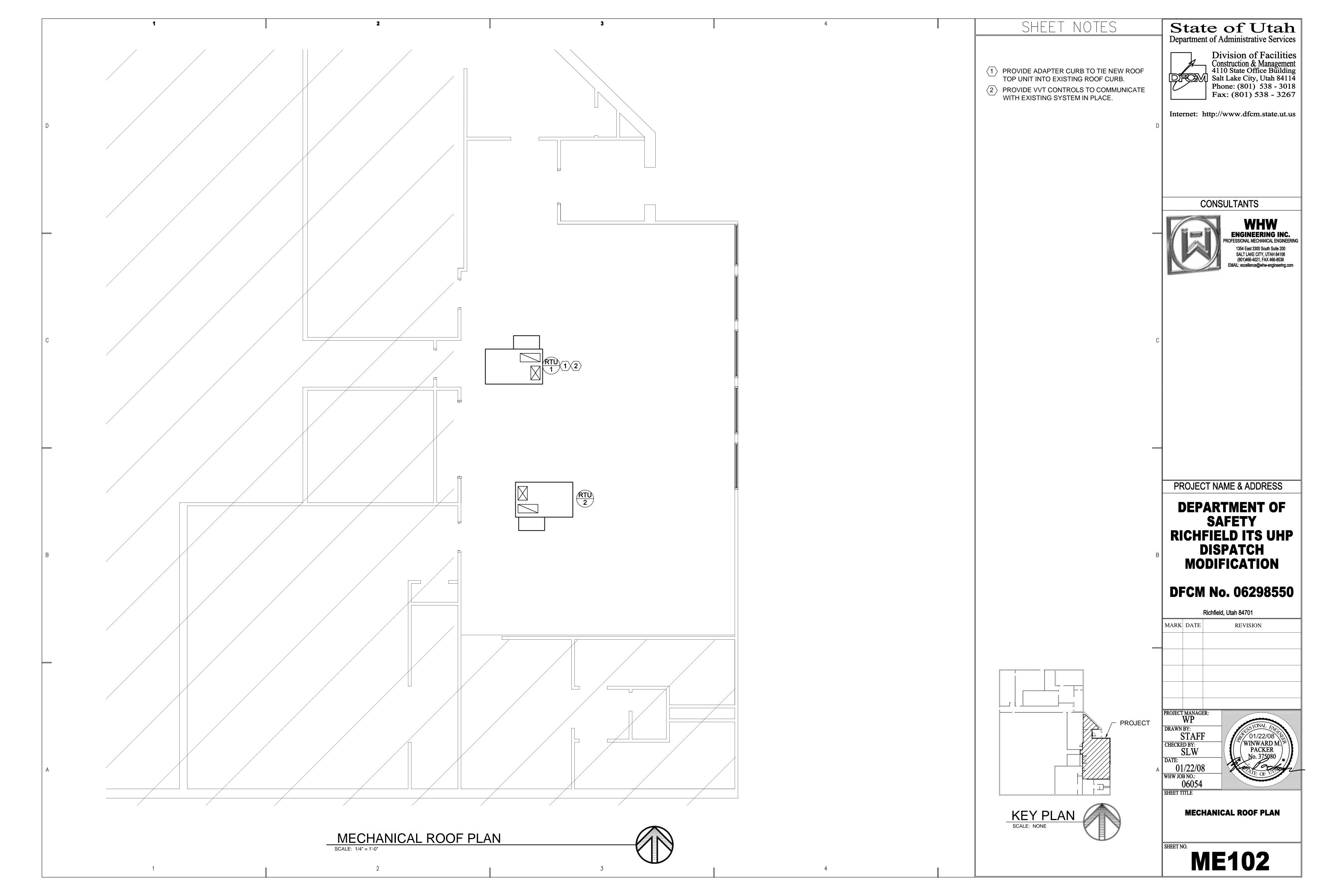
MECHANICAL GENERAL NOTES AND LEGEND

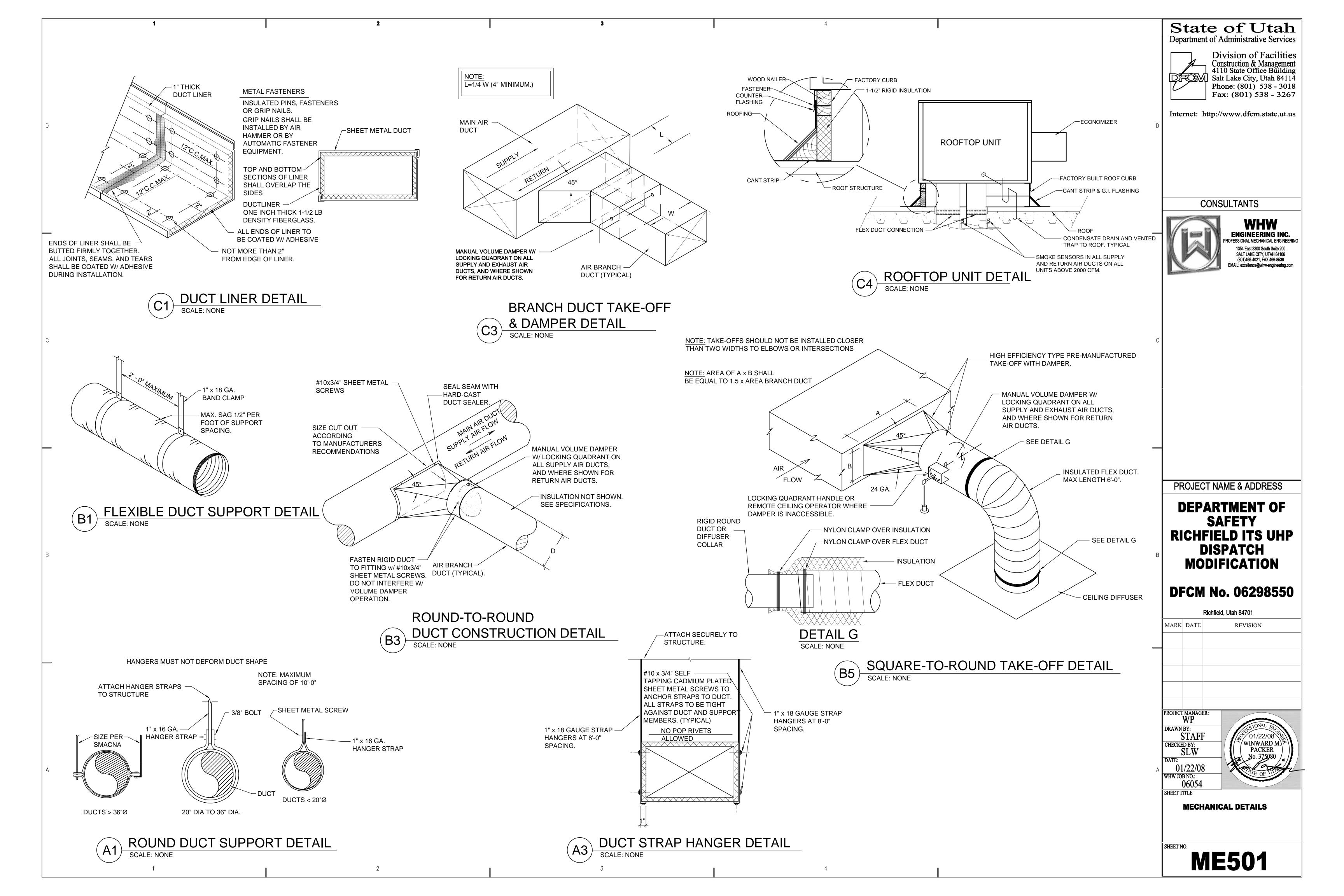
MG001











	DIFFUSER SCHEDULE										
SYMBOL	TYPE	MAX CFM	FACE SIZE	NCK SIZE	CEILING TYPE	BLOW	PATTERN	SCHEDULE NOTES			
D-1 CFM	CEILING	200	9X9	8"Ø	LAY-IN	4WAY	₫ ₩	1,2,3			
D-2 CFM	CEILING	380	12X12	10"Ø	LAY-IN	4WAY	4	1,2,3			

- 1. PROVIDE LAY-IN CEILING AND BORDER / MODULE AS REQUIRED. SEE ARCHITECTURAL CEILING PLANS.
- 2. MAXIMUM NC 25 AT CFM LISTED.
- 3. TRANSITION AS REQUIRED TO DUCT WORK SHOWN ON PLAN.
- 4. FINISH SHALL BE STANDARD WHITE BAKED ENAMEL.

	VVT BYPASS BOX SCHEDULE									
SYMBOL	INLET DIA. (INCHES)	CF	=M	NC LEVEL	MANUF. MODEL#	SCHEDULE NOTES				
	(INCHES)	MAX	MIN		WODLL #	NOTES				
BYPASS RT-1	22/16	2400	0	30	DAMPER	1, 2				

I. SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS. 2. VVT BOXES SHALL BE CONTROLLED BY ROOFTOP UNIT. PROVIDE UPGRADED ROOFTOP CONTROLS PACKAGE, AS WELL AS ALL OTHER REQUIRED CONTROLS COMPONENTS, ACCESSORIES, ETC. AS PART OF VVT EQUIPMENT PACKAGE.

F	REGIST	ER, LO	UVER	& GRIL	LE SCH	HEDUL	Ę
SYMBOL	TYPE	SERVICE	MAX CFM	NOMINAL SIZE	THROAT SIZE	CEILING TYPE	SCHEDULE NOTES
R-1	CEILING	RETURN	180	8/8	8/8	LAY-IN	1,2,3,4
R-2	CEILING	RETURN	1460	22/22	22/22	LAY-IN	1,2,3,4

- REGISTER. LOUVER AND DIFFUSER SCHEDULE NOTES:
- 1. MAXIMUM NC = 25 @ MAXIMUM CFM NOTED.
- 2. SHALL BE PRICE 535 OR EQUAL BY OTHER APPROVED MANUFACTURERS.
- 3. SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
- 4. FINISH SHALL BE STANDARD WHITE BAKED ENAMEL.
- 5. FINISH TO BE SPECIFIED BY ARCH

	ROOFTOP AIR CONDITIONER SCHEDULE (ELECTRIC HEAT)																	
	MAANI IFACTI IDED 9			E C D IN	ELECTRIC	HEATING		COOLING				ELECTRICAL				FFD/	OPER.	COLIEDINE
SYMBOL	MANUFACTURER & MODEL NUMBER	SA CFM	OSA CFM	E.S.P. IN W.G.	KW	FLA	AMB. AIR (DB)	AMB. AIR (WB)	MIN. TOTAL MBH	V - Ø - Hz	COMPRESSOR #	COMPRESSOR TOTAL RLA	COMPRESSOR TOTAL LRA	MCA	MOCP	EER/ SEER	WT. (LBS) COMMENTS	SCHEDULE NOTES
RT 1	CARRIER 50HJ007	2400	600	.8	25.5	30.7	92	65	73	460-3-60	1	38	72	45.3	50	11 EER	800	1,2,3,4,5,6,7
RT 2	CARRIER 50HJ006	2000	500	.8	25.5	30.1	92	65	58	460-3-60	1	39	103	44.5	45	13 SEER	750	1,2,3,4,5,7

- 1. E.S. P. DOES NOT INCLUDE LOSSES THROUGH ACCESSORIES.
- 2. RATED MINIMUM INPUT AT SEA LEVEL.
- 3. PROVIDE ONE 15 AMP, 120 VOLT, DUPLEX GFCI SERVICE OUTLET. FACTORY INSTALLED, FIELD WIRED.
- 4. BELT DRIVE UNIT
- 5. ELECTRIC HEAT
- 6. PROVIDE VVT SYSTEM TO COMMUNICATE WITH EXISTING VARIABLE VOLUME BOXES.
- 7. PROVIDE HIGH STATIC MOTOR.

State of Utah Department of Administrative Services



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Internet: http://www.dfcm.state.ut.us

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PROJECT NAME & ADDRESS

DEPARTMENT OF SAFETY RICHFIELD ITS UHP **DISPATCH MODIFICATION**

DFCM No. 06298550

Richfield Utah 84701

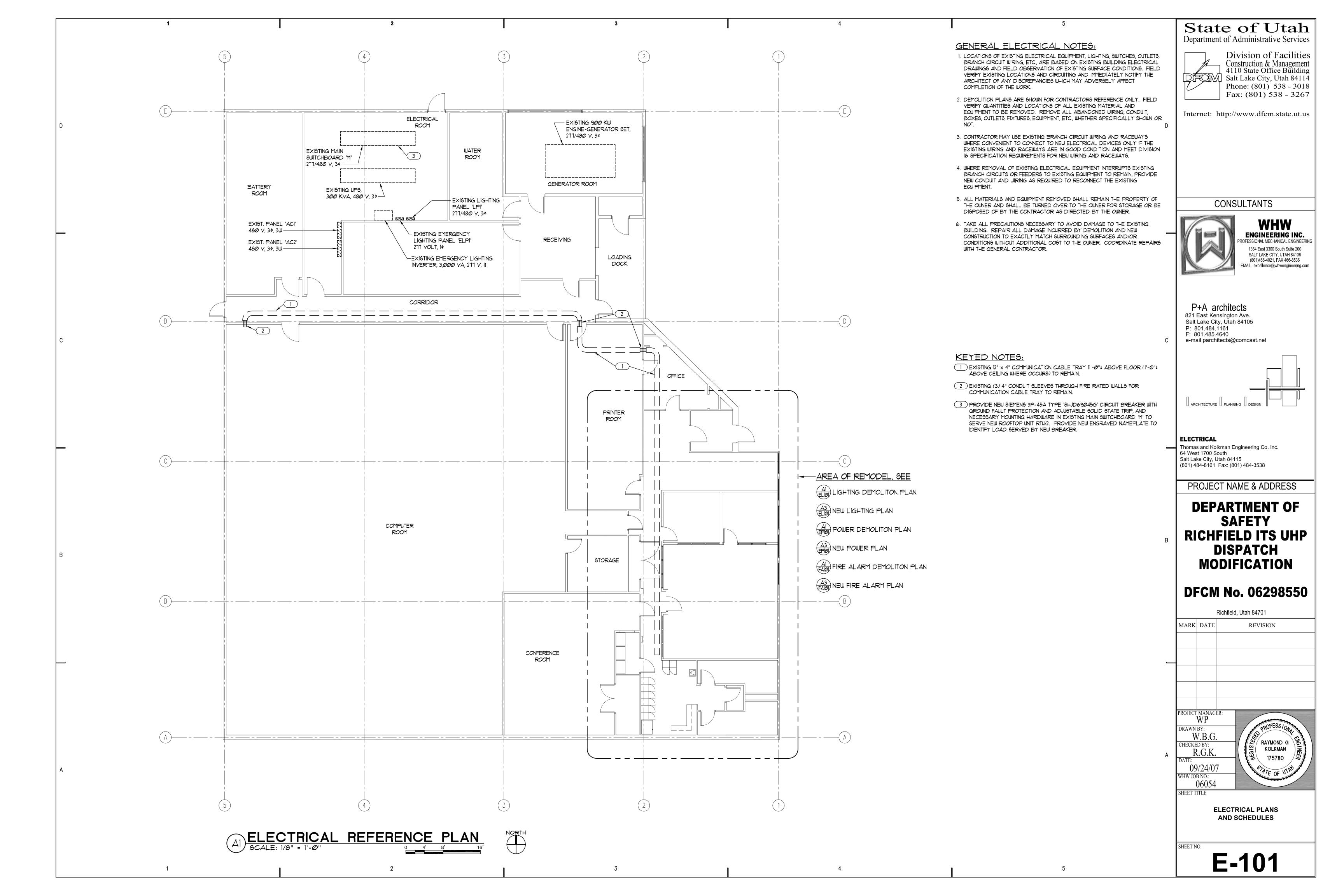
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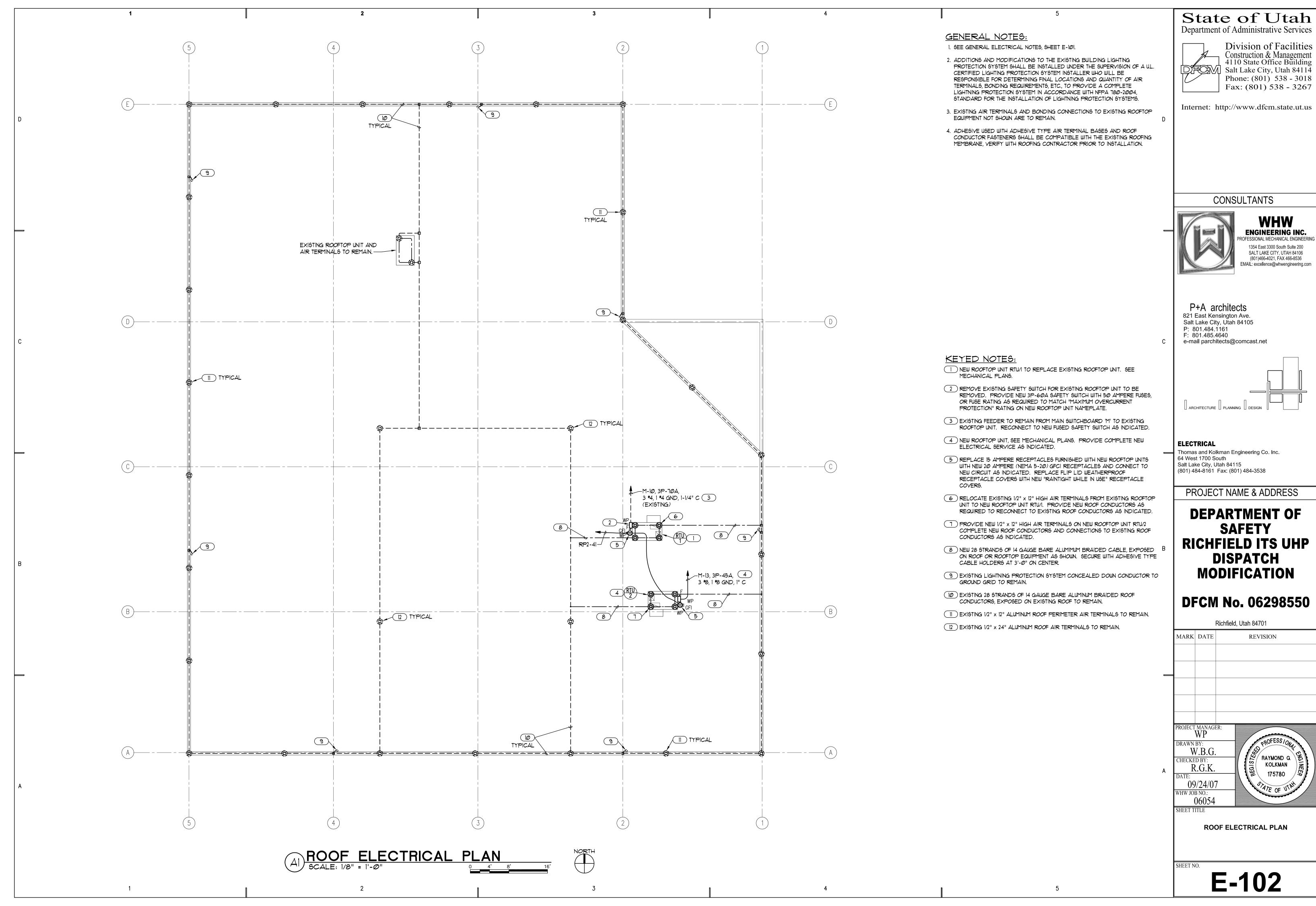
DRAWN BY: **STAFF** CHECKED BY:

WINWARD M. PACKER No. 375080 06054

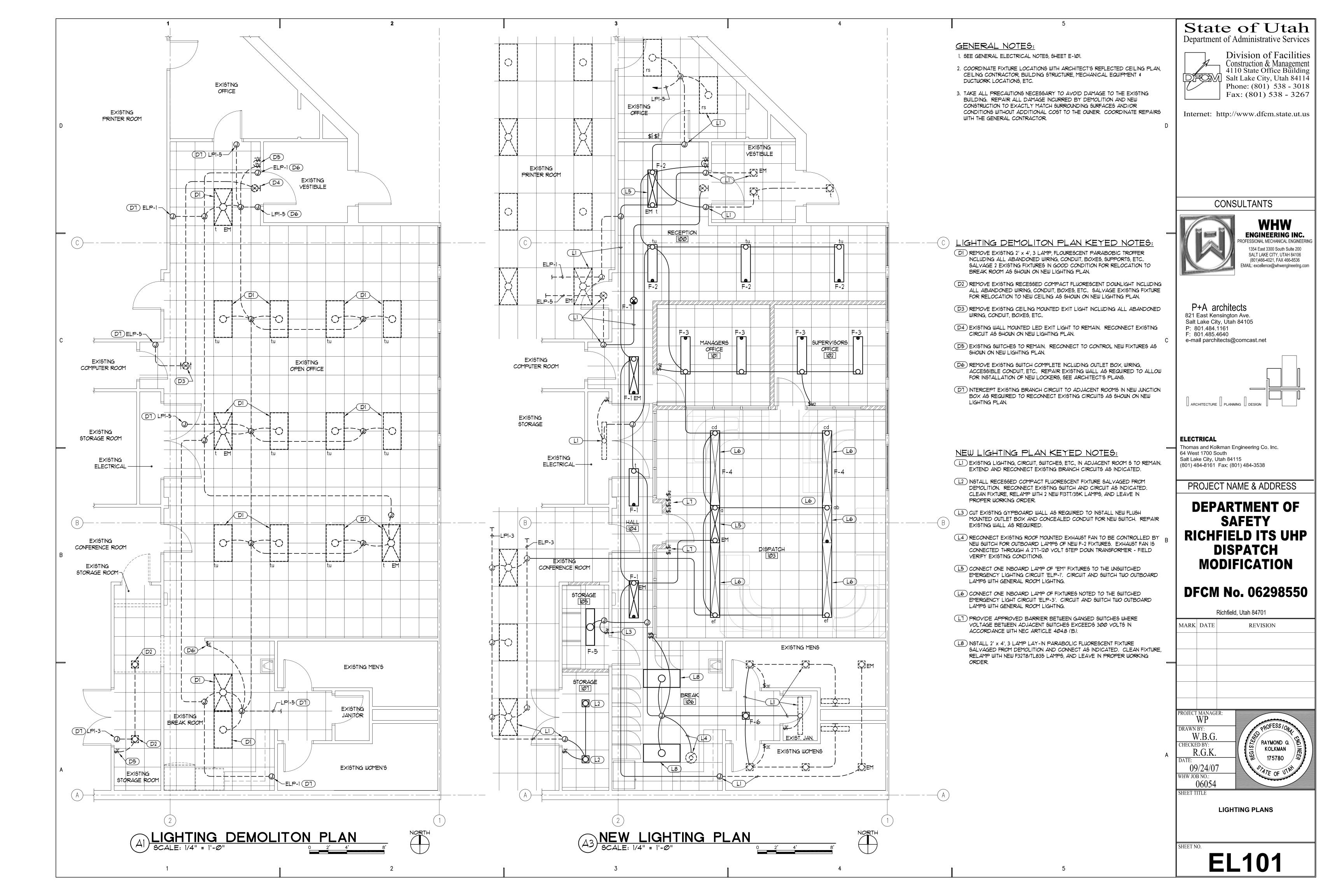
MECHANICAL SCHEDULES

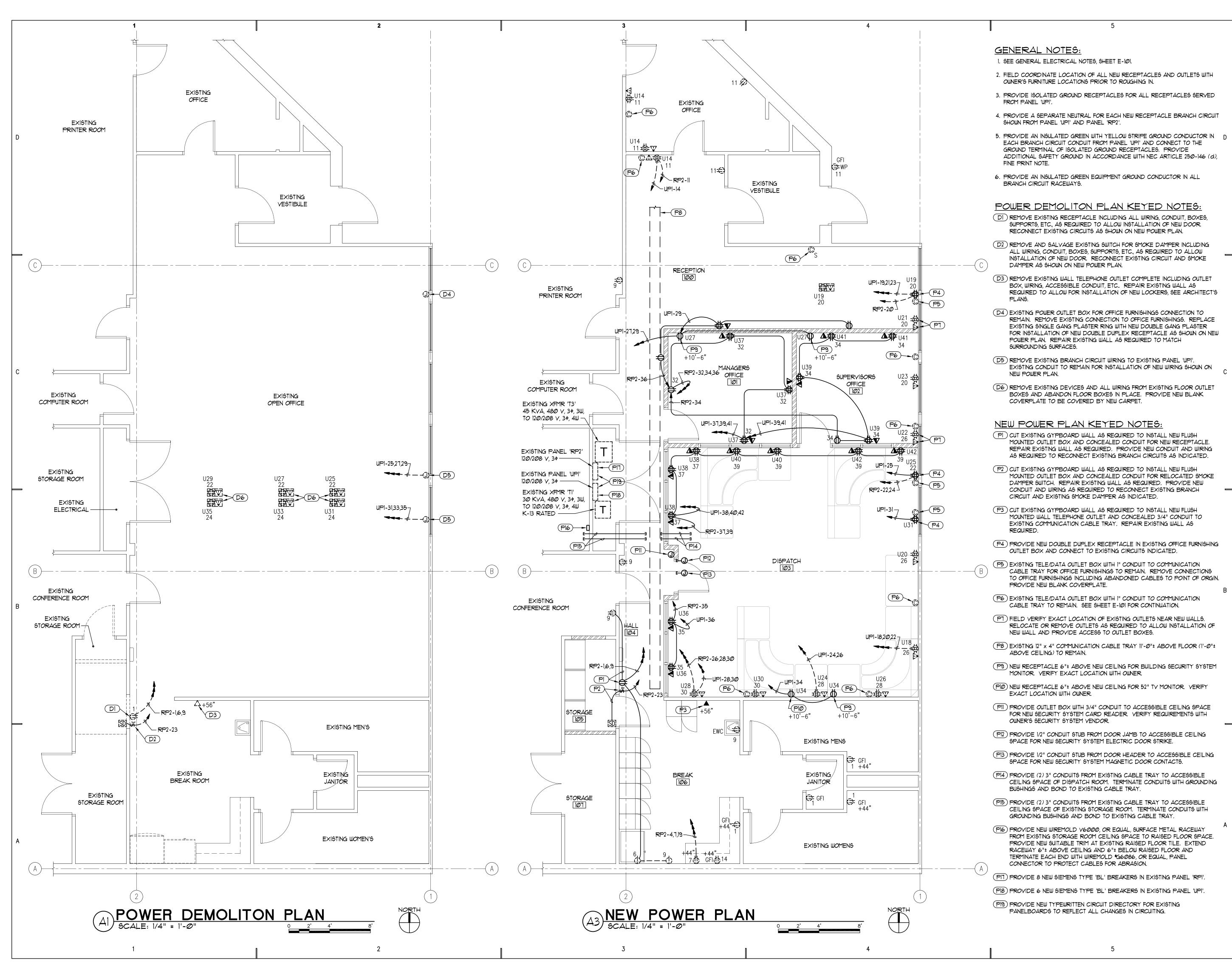
ME601





DROJECT MANAGER	
PROJECT MANAGER: WP	or Eco.
DRAWN BY: W.B.G.	RAYMOND G. KOLKMAN 175780
CHECKED BY: R.G.K.	RAYMOND G. KOLKMAN
DATE:	175780 / 第
09/24/07	STATE OF UTHE
WHW JOB NO.:	TE OF O





State of Utah

Department of Administrative Services



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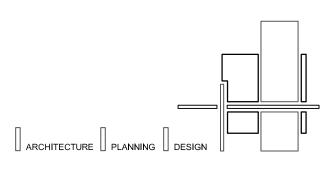
CONSULTANTS



WHW ENGINEERING INC.

ROFESSIONAL MECHANICAL ENGINEERI 1354 East 3300 South Suite 200 SALT LAKE CITY, UTAH 84106 (801)466-4021, FAX 466-8536 EMAIL: excellence@whwengineering.com

P+A architects 821 East Kensington Ave. Salt Lake City, Utah 84105 P 801 484 1161 F: 801.485.4640 e-mail parchitects@comcast.net



ELECTRICAL

Thomas and Kolkman Engineering Co. Inc. 64 West 1700 South Salt Lake City, Utah 84115 (801) 484-8161 Fax: (801) 484-3538

PROJECT NAME & ADDRESS

DEPARTMENT OF SAFETY RICHFIELD ITS UHP **DISPATCH MODIFICATION**

DFCM No. 06298550

Richfield, Utan 84701							
	MARK	DATE	REVISION				

PROJECT MANAGER: DRAWN BY: W.B.G. HECKED BY: R.G.K. 09/24/07

WHW JOB NO.:

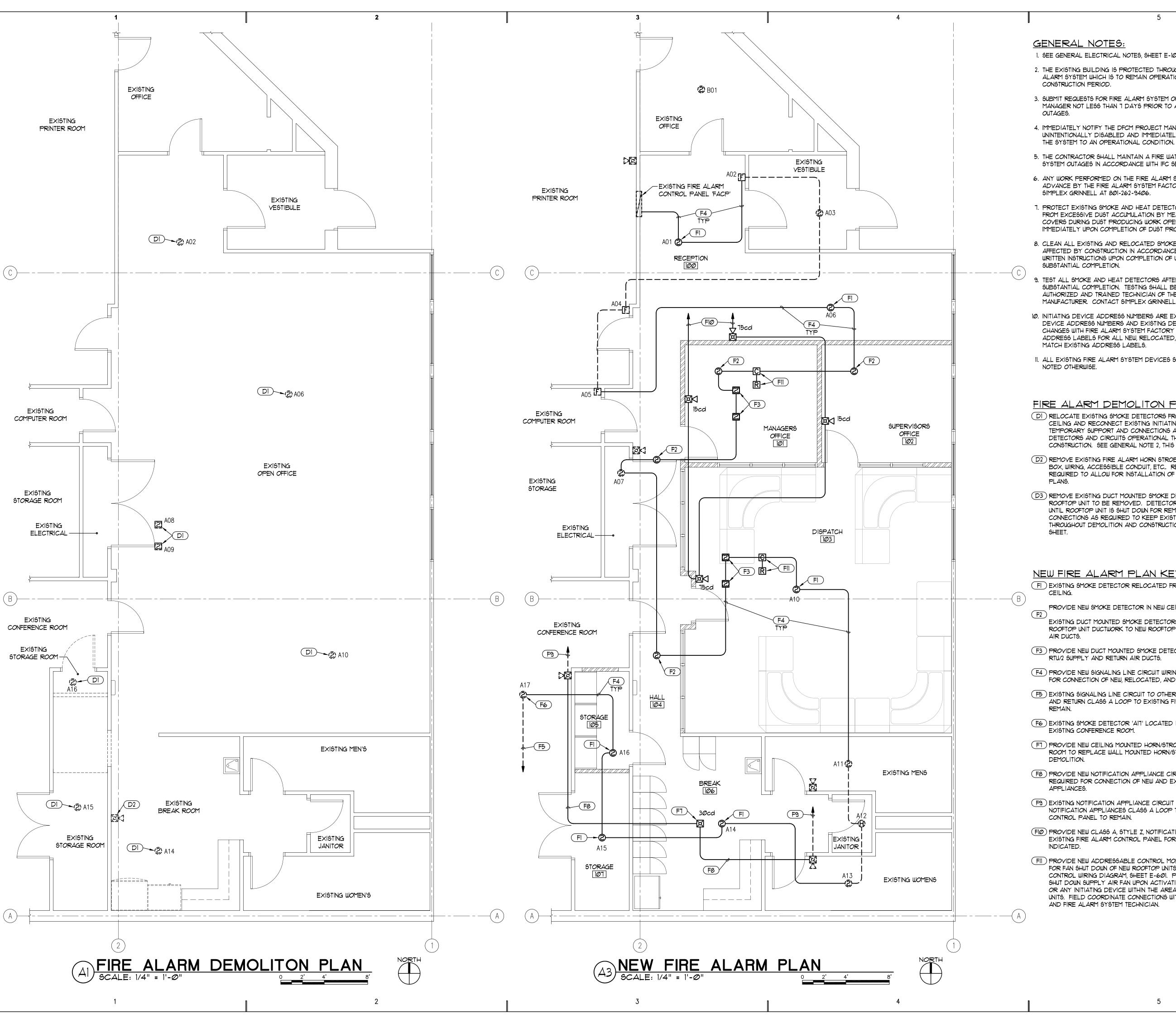
06054

POWER PLANS

/ RAYMOND G.

KOLKMAN

EP101



GENERAL NOTES:

1. SEE GENERAL ELECTRICAL NOTES, SHEET E-101.

- 2. THE EXISTING BUILDING IS PROTECTED THROUGHOUT BY AN AUTOMATIC FIRE ALARM SYSTEM WHICH IS TO REMAIN OPERATIONAL THROUGHOUT THE CONSTRUCTION PERIOD.
- 3. SUBMIT REQUESTS FOR FIRE ALARM SYSTEM OUTAGES TO THE DFCM PROJECT MANAGER NOT LESS THAN I DAYS PRIOR TO ANY PROPOSED FIRE ALARM
- 4. IMMEDIATELY NOTIFY THE DFCM PROJECT MANAGER IF THE FIRE ALARM IS UNINTENTIONALLY DISABLED AND IMMEDIATELY MAKE REPAIRS TO RESTORE D
- 5. THE CONTRACTOR SHALL MAINTAIN A FIRE WATCH DURING ALL FIRE ALARM SYSTEM OUTAGES IN ACCORDANCE WITH IFC SECTION 901.7.
- 6. ANY WORK PERFORMED ON THE FIRE ALARM SYSTEM SHALL BE APPROVED IN ADVANCE BY THE FIRE ALARM SYSTEM FACTORY REPRESENTIVE. CONTACT SIMPLEX GRINNELL AT 801-262-9406.
- 1. PROTECT EXISTING SMOKE AND HEAT DETECTORS IN AREAS OF CONSTRUCTION FROM EXCESSIVE DUST ACCUMULATION BY MEANS OF TEMPORARY DUST COVERS DURING DUST PRODUCING WORK OPERATIONS. REMOVE DUST COVERS IMMEDIATELY UPON COMPLETION OF DUST PRODUCING WORK.
- 8. CLEAN ALL EXISTING AND RELOCATED SMOKE AND HEAT DETECTORS AFFECTED BY CONSTRUCTION IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS UPON COMPLETION OF WORK AND PRIOR TO SUBSTANTIAL COMPLETION.
-). TEST ALL SMOKE AND HEAT DETECTORS AFTER CLEANING AND PRIOR TO SUBSTANTIAL COMPLETION. TESTING SHALL BE PERFORMED BY A FACTORY AUTHORIZED AND TRAINED TECHNICIAN OF THE FIRE ALARM SYSTEM MANUFACTURER. CONTACT SIMPLEX GRINNELL AT 801-262-9406.
- 10. INITIATING DEVICE ADDRESS NUMBERS ARE EXISTING. COORDINATE NEW DEVICE ADDRESS NUMBERS AND EXISTING DEVICE ADDRESS NUMBER CHANGES WITH FIRE ALARM SYSTEM FACTORY TECHNICIAN. PROVIDE NEW ADDRESS LABELS FOR ALL NEW, RELOCATED, AND EXISTING DEVICES TO MATCH EXISTING ADDRESS LABELS.
- 11. ALL EXISTING FIRE ALARM SYSTEM DEVICES SHOWN ARE TO REMAIN UNLESS NOTED OTHERWISE.

FIRE ALARM DEMOLITON PLAN KEYED NOTES:

- (DI) RELOCATE EXISTING SMOKE DETECTORS FROM EXISTING CEILING TO NEW CEILING AND RECONNECT EXISTING INITIATING DEVICE CIRCUIT. PROVIDE TEMPORARY SUPPORT AND CONNECTIONS AS REQUIRED TO KEEP EXISTING DETECTORS AND CIRCUITS OPERATIONAL THROUGHOUT DEMOLITION AND CONSTRUCTION. SEE GENERAL NOTE 2, THIS SHEET.
- (D2) REMOVE EXISTING FIRE ALARM HORN STROBE COMPLETE INCLUDING OUTLET BOX, WIRING, ACCESSIBLE CONDUIT, ETC.. REPAIR EXISTING WALL AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW LOCKERS, SEE ARCHITECT'S PLANS.
- (D3) REMOVE EXISTING DUCT MOUNTED SMOKE DETECTORS FROM EXISTING ROOFTOP UNIT TO BE REMOVED. DETECTORS ARE TO REMAIN OPERATIONAL UNTIL ROOFTOP UNIT IS SHUT DOWN FOR REMOVAL. PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO KEEP EXISTING CIRCUIT OPERATIONAL THROUGHOUT DEMOLITION AND CONSTRUCTION. SEE GENERAL NOTE 2, THIS

NEW FIRE ALARM PLAN KEYED NOTES:

- (FI) EXISTING SMOKE DETECTOR RELOCATED FROM EXISTING CEILING TO NEW
- PROVIDE NEW SMOKE DETECTOR IN NEW CEILING.
- EXISTING DUCT MOUNTED SMOKE DETECTORS RELOCATED FROM EXISTING ROOFTOP UNIT DUCTWORK TO NEW ROOFTOP UNIT RTU/I SUPPLY AND RETURN
- (F3) PROVIDE NEW DUCT MOUNTED SMOKE DETECTORS ON NEW ROOFTOP UNIT RTU/2 SUPPLY AND RETURN AIR DUCTS.
- F4 PROVIDE NEW SIGNALING LINE CIRCUIT WIRING AND CONDUIT AS REQUIRED FOR CONNECTION OF NEW, RELOCATED, AND EXISTING INITIATING DEVICES.
- (F5) EXISTING SIGNALING LINE CIRCUIT TO OTHER BUILDING INITIATING DEVICES AND RETURN CLASS A LOOP TO EXISTING FIRE ALARM CONTROL PANEL TO
- (F6) EXISTING SMOKE DETECTOR 'AIT' LOCATED IN RAISED FLOOR SPACE OF EXISTING CONFERENCE ROOM.
- (F1) PROVIDE NEW CEILING MOUNTED HORN/STROBE COMBINATION IN BREAK ROOM TO REPLACE WALL MOUNTED HORN/STROBE REMOVED BY
- (F8) PROVIDE NEW NOTIFICATION APPLIANCE CIRCUIT WIRING AND CONDUIT AS REQUIRED FOR CONNECTION OF NEW AND EXISTING NOTIFICATION APPLIANCES.
- F9 EXISTING NOTIFICATION APPLIANCE CIRCUIT TO OTHER BUILDING NOTIFICATION APPLIANCES CLASS A LOOP TO EXISTING FIRE ALARM CONTROL PANEL TO REMAIN.
- (FIØ) PROVIDE NEW CLASS A, STYLE Z, NOTIFICATION APPLIANCE CIRCUIT TO EXISTING FIRE ALARM CONTROL PANEL FOR NEW HORN/STROBES AS INDICATED.
- (FII) PROVIDE NEW ADDRESSABLE CONTROL MODULE AND NEW POWER RELAY FOR FAN SHUT DOWN OF NEW ROOFTOP UNITS. SEE TYPICAL FAN SHUT DOWN CONTROL WIRING DIAGRAM, SHEET E-601. PROGRAM CONTROL MODULES TO SHUT DOWN SUPPLY AIR FAN UPON ACTIVATION OF DUCT SMOKE DETECTORS OR ANY INITIATING DEVICE WITHIN THE AREAS SERVED BY THE ROOFTOP UNITS. FIELD COORDINATE CONNECTIONS WITH MECHANICAL CONTRACTOR AND FIRE ALARM SYSTEM TECHNICIAN.

State of Utah

Department of Administrative Services



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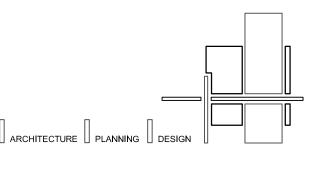
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PROJECT NAME & ADDRESS

DEPARTMENT OF SAFETY RICHFIELD ITS UHP **DISPATCH MODIFICATION**

DFCM No. 06298550

Diahfiald 1 Hab 04704

Richfield, Utah 84/01					
MARK	DATE	REVISION			
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PROJECT MANAGER: DRAWN BY: W.B.G. $^{\prime}$ raymond G. HECKED BY: KOLKMAN R.G.K. 09/24/07 VHW JOB NO.: 06054

FIRE ALARM PLANS

FA101

FIXTURE SCHEDULE						
SYMBOL	MANUFACTURER	CATALOG NO.	DESCRIPTION	LAMP		
F-1	PMC LIGHTING	SPF13-DI-P18-2/DCT-4-WHT-277- EB10R	PENDANT MOUNTED, 4 FT, 2 LAMP ROW, DIRECT/INDIRECT FLOURESCENT FIXTURE WITH PERFORATED METAL DIFFUSER WITH OPAL ACRYLIC OVERLAY, 18" LONG RIGID PENDANTS, AND 277 VOLT, <10% THD PROGRAMMED START ELECTRONIC BALLAST.	2F32T8/TL835		
F-2	PMC LIGHTING	SPF13-DI-P18-3/DCT-4-WHT-277- EB10R-2CIR	PENDANT MOUNTED, 4 FT, 3 LAMP ROW, DIRECT/INDIRECT FLOURESCENT FIXTURE WITH PERFORATED METAL DIFFUSER WITH OPAL ACRYLIC OVERLAY, 18" LONG RIGID PENDANTS, AND 277 VOLT, <10% THD PROGRAMMED RAPID START ELECTRONIC BALLASTS WIRED FOR INBOARD/OUTBOARD LAMP OPERATION.	3F32T8/TL835		
F-3	PMC LIGHTING	SPF13-DI-P18-4/DCT-4-WHT-277- EB10R-2CIR	PENDANT MOUNTED, 4 FT, 3 LAMP ROW, DIRECT/INDIRECT FLOURESCENT FIXTURE WITH PERFORATED METAL DIFFUSER WITH OPAL ACRYLIC OVERLAY, 18" LONG RIGID PENDANTS, AND 277 VOLT, <10% THD PROGRAMMED RAPID START ELECTRONIC BALLASTS WIRED FOR INBOARD/OUTBOARD LAMP OPERATION.	4F32T8/TL835		
F-4	PMC LIGHTING	SPF13-DI-P18-3/DCT-20-WHT-277- EB10R-2CIR	PENDANT MOUNTED, 20 FT, 3 LAMP ROW, DIRECT/INDIRECT FLOURESCENT FIXTURE WITH PERFORATED METAL DIFFUSER WITH OPAL ACRYLIC OVERLAY, 18" LONG RIGID PENDANTS, AND 277 VOLT, <10% THD PROGRAMMED START ELECTRONIC BALLASTS WIRED FOR INBOARD/OUTBOARD LAMP OPERATION. 20 FT OVERALL LENGTH CONSISTING OF 8 FT/4 FT/8 FT SECTIONS.	15F32T8/TL835		
F-5	COLUMBIA DAY-BRITE LIGHTOLIER LITHONIA METALUX WILLIAMS	P214-132G-LD1x8-S-EP-277 1P3GS132-16SL-277-1/1-EB10R VRS1G-8LS-132-277-HR PM3GB-132-6LD-277-GEB10RS EP3GX-132-S16I-277-ER81 U3G-D14-132-16S-EB8LH1-277	1' x 4', 1 LAMP, LAY-IN FLUDRESCENT FIXTURE WITH FLOATING DOOR WITH BLACK REVEAL, FULL 3' DEEP, 6 CELL LOW IRIDESCENCE SEMI-SPECULAR ALUMINUM LOUVER AND ONE 1 LAMP 277 VOLT, <10% THD ELECTRONIC BALLAST.	1F32T8/TL835		
F-6	PRESCOLITE	LF8CFH213TWEB-8CFH	RECESSED COMPACT FLOURESCENT DOWNLIGHT WITH SPECULAR CLEAR LOW IRRIDESCENT ALZAK REFLECTOR, NOMINAL 8" DIAMETER APERATURE AND 277 VOLT <10% THD ELECTRONIC BALLAST.	2CFT13W/35K		
F-7	DUAL-LITE EXITRONIX LIGHTOLIER LITHONIA MCPHILBEN SURE-LITES	SE-S-R-BW G400U-LB-BL LD-A-1-G-A LES-1G-120/277 30VL-1-G CX-6-1-G	UNIVERSAL MOUNTED, SINGLE FACE, LIGHT EMITTING DIODE (LED) EXIT LIGHT WITH DIE CAST ALUMINUM HOUSING WITH BLACK FINISH, GREEN LETTERS ON BRUSHED ALUMINUM STENCIL FACE, UNIVERSAL KNOCKOUT CHEVRON ARROWS AND 120/277 DUAL VOLTAGE INPUT.	FURNISHED W/ FIXTURE		

EQUIPMENT SCHEDULE											
EQUIP.			VOLTS	PHASE	WATTS H.P.		STARTERS FURNISH INSTALL SIZE		AUX. CONT.	LOCATION	
RTU 1	ROOFTOP AIR CONDITIONER (ELECTRIC HEAT)	NUMBER M-10	480	3	34.1 AMPS	3P-5ØA FUSE	M	M	M	-	ON ROOF
RTU 2	ROOFTOP AIR CONDITIONER (ELECTRIC HEAT)	M-13	480	3	33.5 AMPS	3P-45A FUSE	М	M	М	-	ON ROOF

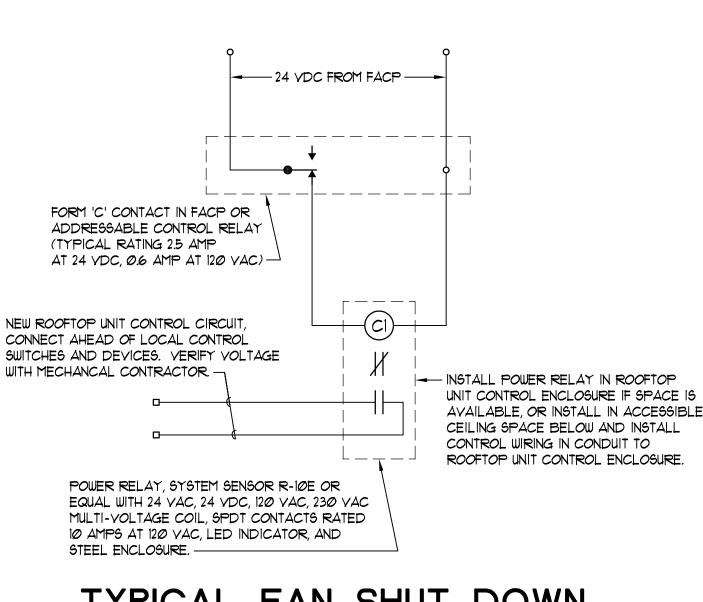
E - ELECTRICAL CONTRACTOR M - MECHANICAL CONTRACTOR

SUPPLEMENTARY 12 GAUGE GALVANIZED STEEL TIE WIRES ATTACHED TO GRID AS REQUIRED BY NOTES 2 OR 3. (TYPICAL)-TWO 12 GAUGE GALYANIZED STEEL TIE WIRES AT OPPOSITE _4 TURNS IN 1" OF RUN, CORNERS OF FIXTURE. -TYPICAL EACH END. LIGHTING FIXTURE — - SECURE FIXTURE TO CEILING GRID WITH APPROVED CLAMPS, (2 PER SIDE) CEILING TILES CEILING GRIDS

FIXTURE SUPPORT NOTES:

- 1. ALL LIGHTING FIXTURES SHALL BE POSITIVELY ATTACHED TO THE SUSPENDED CEILING SYSTEM. THE ATTACHMENT DEVICE SHALL HAVE A CAPACITY OF 100% OF THE LIGHTING FIXTURE WEIGHT ACTING ANY DIRECTION.
- 2. FOR INTERMEDIATE DUTY CEILING SYSTEM, PROVIDE A SUPPLEMENTARY 12 GAUGE HANGER ATTACHED TO THE GRID MEMBERS WITHIN 3" OF EACH CORNER OF EACH FIXTURE AS SHOWN ON DETAIL. TANDEM FIXTURES MAY UTILIZE COMMON WIRES.
- 3. FOR HEAVY DUTY CEILING SYSTEM, SUPPLEMENTARY HANGERS ARE NOT REQUIRED IF A 48" MODULAR HANGER WIRE PATTERN IS USED AND THE LIGHTING FIXTURE IS SUPPORTED FROM MAIN TEES. SUPPLEMENTARY 12 GAUGE HANGERS ARE REQUIRED WHERE THE FIXTURE IS SUPPORTED FROM CROSS TEES WITH LESS CARRYING CAPACITY THAN THE MAIN TEES.
- 4. LIGHTING FIXTURES WEIGHING LESS THAN 56 LBS. SHALL HAVE, IN ADDITION TO THE REQUIREMENTS OUTLINED ABOVE, TWO 12 GAUGE HANGERS CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE. THESE WIRES MAY BE SLACK.
- 5. LIGHTING FIXTURES WEIGHING 56 LBS. OR MORE SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY APPROVED HANGERS.
- 6. PENDANT HUNG LIGHTING FIXTURES SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE USING 9 GAUGE WIRES OR APPROVED ALTERNATE SUPPORT WITHOUT USING CEILING SUSPENSION SYSTEM FOR DIRECT SUPPORT.
- 1. COORDINATE SUPPORT REQUIREMENTS AND HANGER WIRE INSTALLATION WITH

TYPICAL LIGHTING FIXTURE SUPPORT DETAIL NOT TO SCALE



TYPICAL FAN SHUT DOWN CONTROL WIRING DIAGRAM

Ю	NEW WALL MOUNTED FIXTURE
	NEW RECESSED FIXTURE
	NEW FLUORESCENT FIXTURE
	NEW FIXTURE CONNECTED TO UNSWITCHED EMERGENCY LIGHT CIRCUIT
	NEW FIXTURE CONNECTED TO SWITCHED EMERGENCY LIGHT CIRCUIT
⊗ †	NEW EXIT LIGHT WITH ARROW INDICATING DIRECTION OF EXIT
\circ	EXISTING CEILING MOUNTED FIXTURE
Ю	 EXISTING WALL MOUNTED FIXTURE
	EXISTING RECESSED FIXTURE
	EXISTING FLUORESCENT FIXTURE
EM	EXISTING FIXTURE CONNECTED TO UNSWITCHED EMERGENCY LIGHT CIRCUIT
	EXISTING FIXTURE CONNECTED TO SWITCHED EMERGENCY LIGHT CIRCUIT
⊗	EXISTING EXIT LIGHT
Oa	FIXTURE WITH LETTER INDICATING CONTROLLING SWITCH
\$	
	NEW SINGLE POLE SWITCH
\$ 3	NEW THREE WAY SWITCH
\$ °	SWITCH WITH LETTER INDICATING CONTROLLED FIXTURES
\$ _M	NEW OCCUPANCY SENSOR WALL SWITCH
\$ _{M2}	 NEW DUAL LEVEL OCCUPANCY SENSOR WALL SWITCH
\$ _R	RELOCATED SWITCH
\$ E	EXISTING SINGLE POLE SWITCH
\$ 3E	EXISTING THREE WAY SWITCH
\$ 2E	EXISTING DOUBLE POLE SWITCH
0	NEW JUNCTION BOX
(I)	EXISTING JUNCTION BOX
 	NEW DUPLEX RECEPTACLE
│	NEW DOUBLE DUPLEX RECEPTACLE
⇔ GFI	NEW RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
Θ	EXISTING SINGLE RECEPTACLE
÷	EXISTING DUPLEX RECEPTACLE
-	
€EWC	RECEPTACLE FOR ELECTRIC WATER COOLER
•	NEW TELEPHONE OUTLET
◀	NEW TELEPHONE/DATA OUTLET
<1	EXISTING TELEPHONE OUTLET
∢ ∃	EXISTING TELEPHONE/DATA OUTLET
(Ĉ)	EXISTING COMMUNICATION OUTLET BOX
# 17-17 14 27 V	EXISTING COMBINATION POWER AND TELEPHONE/DATA FLOOR OUTLET
[]	EXISTING POWER PANELBOARD, 120/208 VOLT, 3 PHASE
2/2/2	EXISTING POWER PANELBOARD, 277/480 VOLT, 3 PHASE
<u>T</u>	EXISTING TRANSFORMER
A-1,3,5	BRANCH CIRCUIT HOMERUN INDICATING PANEL AND CIRCUIT NUMBERS
	 NEW BRANCH CIRCUIT CONCEALED IN WALL OR CEILING
	NEW BRANCH CIRCUIT EXPOSED ON WALL OR CEILING
	EXISTING BRANCH CIRCUIT
(9)	NEW MOTOR
□n⊧	NEW DISCONNECT SWITCH, 'F' INDICATES FUSED, 'NF' INDICATES NON-FUSED
	EXISTING FIRE ALARM CONTROL PANEL
£	EXISTING FIRE ALARM PULL STATION
©	 EXISTING: FIRE ALARM SMOKE DETECTOR
	EXISTING FIRE ALARM DUCT MOUNTED SMOKE DETECTOR
(P)	EXISTING FIRE ALARM HEAT DETECTOR
	EXISTING FIRE ALARM HORN/STROBE COMBINATION
©	NEW FIRE ALARM SMOKE DETECTOR
	NEW FIRE ALARM DUCT MOUNTED SMOKE DETECTOR
⊠√ 15cd	 NEW FIRE ALARM HORN/STROBE INDICATING MINIMUM EFFECTIVE CANDLEPOWER
⊠ 30cd	NEW CEILING MOUNTED FIRE ALARM HORN/STROBE INDICATING MINIMUM ECP
_	
	NEW FIRE ALARM ADDRESSABLE CONTROL RELAY
R	NEW FIRE ALARM FIRE SAFETY FUNCTION POWER RELAY
RTU 2	EQUIPMENT SCHEDULE SYMBOL
F-2	FIXTURE SCHEDULE SYMBOL
(2)	KEYED NOTE SYMBOL
	DETAIL NUMBER OR SECTION LETTER
(A2) (E-601)	
	SHEET ON WHICH DETAIL OR SECTION IS SHOWN
WP	INDICATES ITEM IN WEATHERPROOF (NEMA 3R MINIMUM) ENCLOSURE

SYMBOL LIST

DESCRIPTION

NEW CEILING MOUNTED FIXTURE

SYMBOL

State of Utah

Department of Administrative Services Division of Facilities



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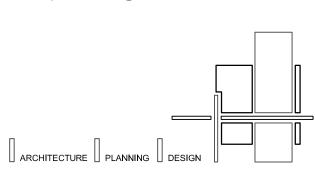
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PROJECT NAME & ADDRESS

DEPARTMENT OF SAFETY RICHFIELD ITS UHP **DISPATCH MODIFICATION**

DFCM No. 06298550

Richfield, Utah 84701

	A								
	MARK	DATE	REVISION						

DRAWN BY: W.B.G. $^{\prime}$ raymond G. $^{\circ}$ HECKED BY: KOLKMAN R.G.K. 09/24/07 WHW JOB NO.:

06054 SHEET TITLE

> SYMBOL LIST, **SCHEDULES AND DIAGRAMS**

E-601